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Examining the Characteristics and Managerial Challenges of Professional Services: An Empirical Study of Management Consultancy in the Travel, Tourism, and Hospitality Sector

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Examining the Characteristics and Managerial Challenges of Professional Services: An Empirical Study of Management Consultancy in the Travel, Tourism, and Hospitality Sector

Abstract

This paper finds that OM's 'one-size-fits-all' characterization of professional services, namely high levels of customer engagement, extensive customization, knowledge intensity, and low levels of capital intensity, does not hold when carrying out a 'deep dive' (to the best of our knowledge, a first in this area of OM) into consultancy in the US travel, tourism, and hospitality sector. We analyse mixed-method data (semi-structured interviews, focus groups, and a best—worst choice experimental survey) and observe that consultancy can actually be quite remote and passive and that any periods of face-to-face 'engagement' will typically be time limited and focused on specific project phases. Moreover, and further confirming the value of a study that allowed us to investigate professional service operations in a specific market context, our data suggest this may often be at the behest of the client. The significant variation observed in levels of customization we interpret as confirming Maister's (1993) notion of a portfolio of brains, grey hair, and procedural work. We also observed relatively high levels of capital intensity; reflecting perhaps the vintage of most OM characterizations and the dramatic ICT-related changes that have occurred in all business operations in the last 20 years. The work also demonstrates the necessity of a more contingent perspective on PSOM. We assess the impact of both firm (scale, specialization) and individual level (leverage) characteristics to demonstrate significant variation within what might be expected to be a relatively homogenous group of professional service operations. For example, investigating the effects of specialization (via a typology of consulting operations: *super-specialists,* generalists, deep knowledge traders, deep market knowledge traders) revealed that relative degree of interaction may be dependent upon degree of expertise, such that it was the super-specialists in our sample that spent less time with clients and the more generalist firms who were complementing their limited expert status with high levels of interaction (networking, etc.).

Keywords

professional service firms, professional service operations management (PSOM), empirical research, mixed-method data, consultancy, travel, tourism, hospitality contingency

Disciplines

Hospitality Administration and Management | Tourism and Travel

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Examining the characteristics and managerial challenges of professional services: An empirical study of management consultancy in the travel, tourism, and hospitality sector

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ABSTRACT

This paper finds that OM's 'one-size-fits-all' characterization of professional services, namely high levels of customer engagement, extensive customization, knowledge intensity, and low levels of capital intensity, does not hold when carrying out a 'deep dive' (to the best of our knowledge, a first in this area of OM) into consultancy in the US travel, tourism, and hospitality sector. We analyse mixed-method data (semi-structured interviews, focus groups, and a best–worst choice experimental survey) and observe that consultancy can actually be quite remote and passive and that any periods of face-to-face 'engagement' will typically be time limited and focused on specific project phases. Moreover, and further confirming the value of a study that allowed us to investigate professional service operations in a specific market context, our data suggest this may often be at the behest of the client. The significant variation observed in levels of customization we interpret as confirming Maister's (1993) notion of a portfolio of *brains*, *grey hair*, and *procedural* work. We also observed relatively high levels of capital intensity; reflecting perhaps the vintage of most OM characterizations and the dramatic ICT-related changes that have occurred in *all* business operations in the last 20 years. The work also demonstrates the necessity of a more contingent perspective on PSOM. We assess the impact of both firm (scale, specialization) and individual level (leverage) characteristics to demonstrate significant variation within what might be expected to be a relatively homogenous group of professional service operations. For example, investigating the effects of specialization (via a typology of consulting operations: super-specialists, generalists, deep knowledge traders, deep market knowledge traders) revealed that relative degree of interaction may be dependent upon degree of expertise, such that it was the *super-specialists* in our sample that spent less time with clients and the more *generalist* firms who were complementing their limited expert status with high levels of interaction (networking, etc.).

1. Introduction

Within the, albeit limited (Machuca et al., 2007; Hopp et al., 2009), professional service operations management (PSOM) literature generic conceptual perspectives predominate. All 'professional' operations – be they accountants, advertising agencies, architects, design engineers, doctors, executive recruiters, fashion designers, insurance brokers, investment bankers, lawyers, management consultants, media producers, R&D laboratories, software providers, social work agencies and universities – are presumed to exhibit certain characteristics. These include high levels of customer engagement, extensive customization, knowledge intensity, and low levels of capital intensity (Sampson and Froehle, 2006; Schmenner, 1986; Silvestro et al., 1992). Discussions of shared characteristics may be useful when contrasting professional services with, for example, mass services. However, any deeper reflection on the literature or review of the limited number of focused empirical studies highlight significant variance in the clients, professionals, bodies of knowledge, regulatory environments, and competitive landscapes, across different professional settings. Equally, although in some settings it may be

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accurate to challenge the effectiveness of "standard operating procedures" (Kellogg and Nie, 1995, p.329) and the managerial metaphor of 'cat herding' may indeed resonate (Løwendahl, 2000), there is limited empirical evidence regarding the specific managerial challenges that comprise PSOM (Heineke, 1995; Machuca et al., 2007) and, again, no real reflection on the key contingencies that may shape these challenges. Schmenner's (1986) elaboration of the challenges associated with different service types provides some interesting points of departure but detailed questions remain unanswered. What, for example, have the effects of ubiquitous information and communications technology (ICT), globalization and outsourcing, or the increased focus on standardization had on the nature of PSOM (Metters and Verma, 2008).

Given this context, we identified three key research objectives. First, we wanted to explore the extent to which generic conceptual characterizations (i.e. high engagement, customization, and knowledge intensity, and low capital intensity) align with observed practice. To do so, we decided to narrow our focus to a particular professional service type, management consultancy.[1] This focused approach is in line with previous studies. For example, McNeilly and Barr (2006) studied accounting services when exploring provider–client relationships, whilst Boone et al. (2008) collected data in an architectural engineering context to study learning and knowledge depreciation within the professional services. Moreover, given that a great deal of professional service competitive advantage relates to and is derived from client/sector insight and social capital (Nahapiet and Ghoshal, 1998), it was also appropriate to limit the study setting to a specific client/market space and correspondingly we selected the US travel, tourism, and hospitality (TTH) sector.[2] Such an approach inevitably limits the generalizability of any findings but given our first objective is, in essence, looking to disprove a null hypothesis (i.e. that there is no relationship between service type and operational characteristics), a single service type focus is suitable. Furthermore, given that 'level of client interaction' was a critical variable under investigation, this approach allowed us to engage with clients in interviews and focus groups. Our second objective was to investigate the relative importance of various managerial challenges in a specific professional setting and here again the 'deep dive' offered significant advantages; giving us control over a number of key professional service-related contingencies (i.e. regulations, competitive and market dynamics, etc.). Finally, our third objective was to begin to explore some of the other contingencies, including scale, leverage, and specialization, that, ex-ante, may influence both operational characteristics and managerial challenges.

Given the exploratory nature of our research, we adopted a mixed methods approach, combining semi-structured interviews, a survey that included a best–worst choice experiment, and a focus group. The rest of the paper is structured as follows. First, we provide a synthesis of the literature as the basis for our research questions. Subsequently, we provide details of our research methodology, including study context, research design, data collection, and analytical approach. We then present the results of our analyses in relation to our research questions. Finally, we discuss our findings, highlight our contributions and limitations, and suggest avenues for future research.

[1] Management, human resource, IT, and technology consultancy together generate more than $500 billion annually. Management consulting alone employs more than 780,000 people in the US.

[2] The travel, tourism, and hospitality sector, is one of the largest in the US economy with a contribution of $1416 billion (8.4% GDP) and more than 14 million jobs (9.8% of all employment).

2. Literature review and research questions

This section reviews the literature relating to our research objectives and then uses these insights as the basis for research questions that structure our empirical investigation. First, we review the characteristics of professional service offerings; combining reflections on the generic/conceptual OM typologies with specific insights that relate to our chosen empirical focus, consulting services. Second, we explore the specific challenges that together comprise PSOM and, third, we reflect on the potential impact of scale, leverage, and specialization as contingent factors that might influence the nature of PSOM.

2.1. Characteristics of professional service offerings

Determining the characteristics of a professional service offering is a significant first step in building an understanding of PSOM. After all, it is the idiosyncrasies of any service type that correspondingly generate its specific managerial challenges. To date, a great deal of the reflection on professional service operations has been shaped by a series of theoretical/conceptual papers. For example, if there are high levels of client interaction and customization in a given professional service this could in turn create significant process variability. Similarly, if a professional service is reliant on high levels of knowledge intensive judgement this will in turn contribute to both variation and relatively extended process throughput times (Sasser et al., 1978; Schmenner, 2004). Finally, the extent to which professionals in a given service setting adhere to explicit external codes of ethics and implicit norms that guide appropriate behaviour (Fischer et al., 2014), reduces the need for, and associated costs of, internal service quality monitoring (Goodale et al., 2008), but may also act to minimize the influence of operations managers (Harvey, 1990). Here, we examine characteristics in relation to customer engagement, customization, and knowledge/capital intensity.

2.1.1. Customer engagement in professional services

Many widely cited service classifications (Maister and Lovelock, 1982; Schmenner, 1986; Silvestro et al., 1992; Wemmerlov, 1990) differentiate professional services from other service types because of their high level of customer engagement. Although at its simplest, this characteristic refers to the extent to which a customer is present[3] during the delivery of a service (i.e. front rather than back office operations), these typologies are also generally referring to the relative 'activity' of the interaction (Mersha, 1990; Goodale et al., 2008). In other words, a professional service is highly interactive because it is assumed that there is extensive dialogue between the client and the provider (Kellogg and Nie, 1995; Frey et al., 2013; Fischer et al., 2014), where both the service requirements and service package are discussed and designed. It is also asserted that these high engagement service operations allow the customer/client to actively intervene with their service processes (Verma, 2000), often to request modifications to what is being delivered. Given the implication that such high engagement causes a reduction in efficiency (Chase, 1981) there is, at least in part, an assumed increase in commercial pressure (Schilling et al., 2012) and a growing belief that high levels of customer participation in the creation of professional service offerings may be a 'double-edged sword' (Chan et al., 2010).

In our chosen service type – consultancy – assumptions relating

[3] Of course, the growth in technology-mediated communication means that the physical presence of the client/provider may no longer be a critical component of any interactivity (Froehle and Roth, 2004; Ellram et al., 2008).

to the nature of the business and operating model introduce significant scope for variation in actual levels of customer engagement. For example, if the 'expert' model involves providing clients with access to 'exclusive' knowledge (albeit in this case not regulated knowledge) in a particular practice area (including sector-knowledge: Fincham et al., 2008), then the engagement process can be interpreted as one of 'diagnosing' needs and suggesting 'treatment' options (Abbott, 1988). In these circumstances, where there are strong knowledge/information asymmetries, the client role could be seen as relatively passive, primarily acting as 'information supplier' during problem diagnosis. Although the engagement process might involve quite intense periods of 'interaction' (i.e. the data collection phase of a consulting project), these will typically be time limited and therefore total interaction (on average) could be very low. Moreover, within the more 'critical' PSOM literature (e.g. Alvesson and Johansson, 2002; McKenna, 2006), the rarely explicit, but generally understood, *political* role of consultants is widely discussed. This notion of consultants being used for 'alternative', even symbolic, purposes would effectively render the question of interaction moot. The debate concerning engagement gives rise to our first research question:

RQ1a: To what extent does consultancy have high levels of customer engagement?

2.1.2. Customization in professional services

Closely related to the notions of engagement and interactivity is the generic idea that professional service offerings are highly customized or tailored for individual customers/clients (Chan et al., 2010; Stouthuysen et al., 2012). Here again however, such a classification rests largely on theoretically, rather than empirically, derived differences between services (Verma, 2000). For example, Schmenner (1986) uses a physician as an example of a highly customized service provider and yet many aspects of this and other professionals' work (e.g. lawyers, accountants, engineers) are strongly controlled by regulatory standards and norms (Amonini et al., 2010). Other authors have pointed out that, "not all services rendered by 'professionals' necessarily involve a high degree of customer influence" (Kellogg and Nie, 1995: p.326). For example, in their case study of a legal professional service firm, Lewis and Brown (2012) find that the regulated and often routine nature of many areas of the legal 'body of knowledge' (Standard contracts, precedent 'libraries', planning procedures, and standard approaches to debt recovery, for example) limit the extent to which service offerings are customized. Similarly, Harvey (1990) argues that the relative power 'gradient' between professionals, managers and clients in a professional service firm (in this case, looking at social workers) provides an important contingent variable for understanding how much adaptation to client requirements is feasible or desirable.

Although not widely incorporated in PSOM typologies, there is discussion of process customization as a contingency in Maister's (1993) classification of three types of operational practice in professional service firms like consultancies. The evocative labels "Brains", "Grey Hair" and "Procedure" are used to present distinct types of operational practice. Although not explicitly derived from classic volume-variety characteristics, these three types can be broadly interpreted using these dimensions: high variety but low volume work are key characteristics of the Brains mode; the Grey Hair mode is larger volumes, relying on accumulation and use of experience to manage towards low(er) variety, and; the Procedure mode is associated with still low(er) variety and higher volume. The debate concerning customization leads to our second research question:

RQ1b: To what extent does consultancy have high levels of service customization?

2.1.3. Knowledge and capital intensity in professional services

The third generic characteristic of professional services is that they are more knowledge intensive but less capital intensive than other types of service operations (von Nordenflycht, 2010; Frey et al., 2013). As such, they require substantial investment in knowledge assets (i.e. employees) but relatively little investment in infrastructure and equipment (Drucker, 1999; Hopp et al., 2007). Here again however, as in the discussion of customer engagement, significantly increased service technology spends, together with increasing levels of professional services outsourcing and offshoring (Ellram et al., 2008; Metters and Verma, 2008; Stouthuysen et al., 2012) may render such characterisation open to question. Interactive information technologies are ubiquitous in modern professional service settings (Froehle and Roth, 2004) and many consulting firms have been "enthusiastic adopters" of knowledge management systems (Brivot, 2011) that aim at identifying, codifying, and storing knowledge (Davies and Brady, 2000; Kim and King, 2004). Similarly, the assumed operating model will likely have a significant impact on the extent and nature of knowledge intensity. If a consultant is a sector specialist for example, knowledge intensity will reflect an accumulation of interactions/learning from the very people who are also the clients seeking their expertise (Føsstenløkken et al., 2003). As such, consulting expertise is also supported by individual status and contacts, supporting and building networks with influential actors. The debate concerning knowledge and capital intensity leads us to our third research question:

RQ1c: To what extent does consultancy have high levels of knowledge intensity and low levels of capital intensity?

2.2. Challenges in delivering professional service offerings

A number of conceptual papers have sought to articulate the generic challenges facing professional service operations. For example, highly customized tasks make standardization difficult, while knowledge intensity potentially limits the ability of an organisation to automate 'judgement' in operating systems and 'routines' (Davenport and Prusak, 2002; Ryu et al., 2005). Similarly, planning and control may tend to emphasize inputs (hours) and outputs (hours billed) rather than process measures (Hopp et al., 2009). Schmenner (1986) argued that professional operations must fight cost pressures; maintain quality; react to client intervention in service processes, and manage employee careers, in particular.

Here again however, detailed empirical examination of these challenges is far less evident. As part of a study of four different service types – service factory (fast food), service shop (automobile repair), mass service (retail sales), and professional service (legal services) – Verma (2000) examined positive and negative associations between Schmenner's twenty-three managerial challenges. For the professional services in his study, the top five managerial challenges identified were maintaining quality, managing the customer experience, hiring employees, developing and controlling work methods, and training. Other empirical articles (e.g. Boone et al., 2008; Cameran et al., 2010; Karantinou and Hogg, 2001; Akerlund, 2005; Smedlund, 2008; Semadeni and Anderson, 2010; Ojasalo, 2001; Macintosh, 2009) explore specific aspects of professional services such as measuring learning and knowledge depreciation, managing customer expectations, etc. but do not

explore the full range of potential managerial challenges. Lewis and Brown (2012) observed that their law firm focused less on process standardization and automation and more on forms of leveraged work management where greater use is made of lower cost (e.g. junior lawyers or junior consultants) and/or differently qualified employees (e.g. paralegal or analysts).

Given that each of the defining professional service characteristics could contribute to a "distinct environment for managing operations" (Goodale et al., 2008, p. 670) a more focused study that still explored the full range of potential managerial challenges represents a significant gap in the literature and gives rise to the following research question.

RQ2: What is the relative importance of different managerial challenges for consultancy?

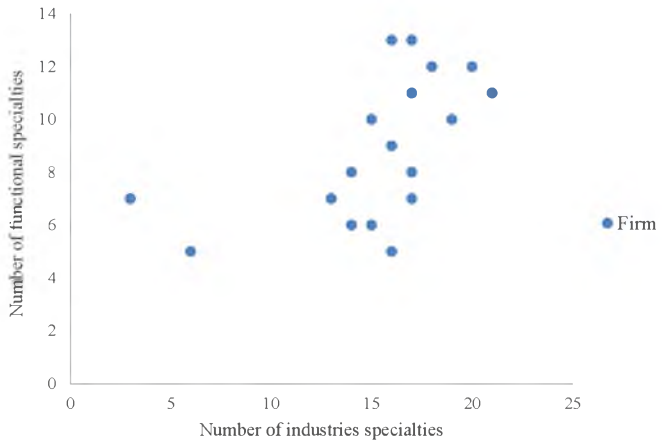

Fig. 1. Mapping specialization for top US consulting firms.

2.3. Preliminary reflections on contingencies in PSOM

Before exploring the detailed validity of the defining characteristics and key managerial challenges outlined above, it is also important to reflect on some of the other contingent factors that might, ex-ante, influence the nature of PSOM. Specifically, we chose to investigate the impact of *scale* and two dimensions of structure – the extent of *leverage* (i.e. senior employees carrying out different tasks to more junior colleagues), and the degree of *specialization*.

First, considering scale, there has been a great deal of merger and acquisition activity in the consulting market over recent years with many observers suggesting a process of consolidation is under way. As such, it seems sensible to consider the impact of the firm size on professional service characteristics and managerial challenges. The link between scale and decisions such as capital investment seems self-evident but there are also suggestions in the literature (See for example, Maister, 1993) that larger firms may have a different process composition (i.e. more procedural work) when compared to smaller firms.

Second, considering leverage, the structure of a consultancy organization (i.e. the mix of junior, middle-level and senior staff) is often labelled as its degree of leverage. In the PSF literature (and practice) there is also reference to an idealized notion of "finders, minders and grinders." Finders (usually the most senior employees) are said to win work, engaging in the social capital building with clients; Minders do project and day-to-day people management and Grinders (usually the most junior employees) perform the analytical tasks. Implicit in this division of labour is its likely contingent effect on both process characteristics and managerial challenges.

Finally, we are interested in the extent to which the degree of firm specialization influences the nature of PSOM. For example the more asymmetric the client-provider knowledge the less the client can specify or intervene in the work. Management consulting firms in the US generally segment their businesses into functional and industry silos. We confirmed this by investigating the websites of 21 top US management consulting firms and noting the functional expertise and industry specialization promoted on their homepages (see Fig. 1). Looking at the data by industry, each industry was serviced by an average of 14.9 firms (StDev 3.4) and the functional specialties were covered by an average of 11.4 firms (StDev 4.0). The focus of our study – travel, tourism, and hospitality – is serviced by 18 of the top 21 US consulting firms. These observations provided us with the preliminary dimensions for a model of specialization in the consulting field – the extent to which a firm is structured around (1) functional/knowledge expertise and (2) specific industries/markets – and correspondingly we categorized, ex-ante, four potential types of consultancy firm (Fig. 2).

First we categorise the *Generalists*, who offer a range of skills and serve a broad range of markets (i.e. the classic branded global consulting firm). Second, and our largest group, we categorise the *Super Specialists*, who deal in specific functional capabilities such as HRM and trade in specific market segments. Third, we have the *Deep Knowledge Traders* whose functional specialisation is strong enough (and portable enough) to trade across multiple segments. Finally, we categorised a group labelled as *Market Knowledge Traders*, who operate more on the basis of market insights, experience and reputation rather than specializing on any specific functional capability.

Our preliminary reflections on possible contingencies that may influence the nature of PSOM give rise to the following questions concerning the effect of scale, leverage, and specialization on characteristics and managerial challenges of consultancy.

RQ3a: What is the influence of organisational scale, leverage, and specialization on characteristics of consultancy?

RQ3b: What is the influence of organisational scale, leverage, and specialization on the relative importance of different managerial challenges for consultancy?

3. Research methodology

In this section, we describe the context for our study and present the overall research design. The logic of choosing an in-depth study of a single service type in a specific market setting was discussed in the introduction. In addition, all members of the research teams have experience working as consultants and two members of the team had extensive prior research experience of travel, tourism, and hospitality. The team were therefore able to bring to the data collection and analysis what Siggelkow (2007, p. 21) calls an 'open but not empty mind'.

3.1. Research design

To explore our research questions, we adopted a multi-method,

		Functional specialization	
		Narrow	Broad
Industry specialization	Broad	Deep Knowledge Traders	Generalists
	Narrow	Super Specialists	Market Knowledge Traders

Fig. 2. Industry and functional specialization.

multi-stage research approach, combining semi-structured interviews, a survey that included a best–worst choice experiment (also known as max-diff approach), and follow-up multi-stage focus groups and interviews. Fig. 3 provides an overview of our approach.

3.1.1. Survey instrument

At the heart of the data collection effort was a large-scale on-line survey. A template of the instrument was reviewed iteratively by members of the research team and by three senior consulting executives. After the collective feedback and revisions, the survey was pilot-tested by 12 additional respondents representing different types of consulting organizations. Again, based on the feedback, the survey was revised further, primarily to readability, ensure consistency of interpretation, and to reduce the length of the survey.

The survey was launched to a large group of potential respondents identified from the Cornell Center for Hospitality Research (CHR) database that includes over 150,000 industry professionals including approximately 10,000 self-identified consultancy professionals. Potential respondents were sent an invitation e-mail outlining the research, how data would be used, and a link to the online survey. Reminder e-mails were sent one week after our initial mailing offering respondents a summary report of key findings (Forza, 2002; Dillman et al., 2010). Of the e-mail invitations sent, the servers returned approximately 2500 as undeliverable. The addressees opened approximately 3000 e-mails, with approximately 1000 potential respondents clicking on the survey link, and 318 completing the survey, representing an effective response rate of 10.6%. After removing the respondents not delivering consultancy services in our selected sector, a final sample size of 251 was obtained. Table 1 provides descriptive data on our final sample.

The first section of this survey collected background information (firm size, client base, position, consultancy type, etc.) and then asked questions related to the characteristics of consulting work. Specifically, we asked respondents to indicate the average percentage of time they spend every week (summing up to 100 before proceeding to the next question) collaborating or working independently on different types of client and non-client related activities. Using the same technique, we asked the respondents to describe the relative customization of their work specific to the needs of their clients, and the level of knowledge and capital intensity in delivering these services.

The second section included a variant of experimental discrete choice analysis, which required respondents to identify alternatives that are respectively "best" and "worst" on some dimension. Whilst a series of studies have demonstrated the superiority of the best–worst technique to other approaches, such as constant sum scales, and ranking, when trying to measure the relative positioning of alternatives (cf. Louviere and Islam, 2008; Marley et al., 2012; Vermeulen et al., 2010; Adamsen et al., 2013), to our knowledge this is its first application in OM research to date. The best–worst choice approach is an appropriate technique for use within our research context because it effectively quantifies the relative importance of multiple managerial challenges (e.g. Garver, 2009; Anger et al., 2007; Lancsar et al., 2013). We adopted the widely used choice modelling software known as Sawtooth Software (http://www.sawtoothsoftware.com/products/maxdiff-software) to design and implement the best–worst choice experiment and to later estimate resulting utilities.

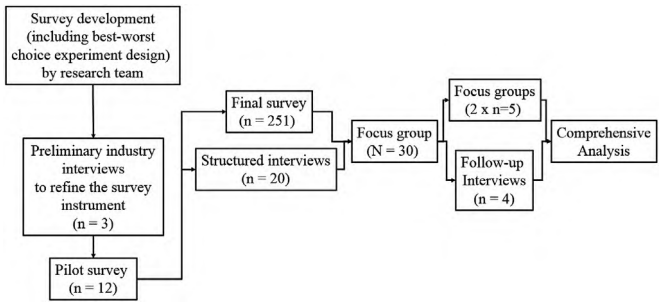

Fig. 3. Summary of research approach.

In our survey, each respondent was shown six best–worst choice sets of managerial challenges. Each best–worst choice set included lists of eight managerial challenges where the respondent was asked to identify the most and the least important. The best–worst experiment was designed in such a manner that each respondent saw a completely different sequence and mix of criteria on each screen automatically generated by the experimental design module within Sawtooth Software. Furthermore, we also conducted post-hoc analysis to ensure that on average each criterion appeared approximately an equal number of times on best–worst screens for each respondent. The final part of the survey included additional questions relating to the respondents' organization (e.g. relative importance of firm objectives; management controls used) and respondent demographics (e.g. education, age, gender, income).

The preliminary results from the survey were presented during focus groups and follow-up interviews (See sections 3.1.2 and 3.1.3). Insights helped to direct additional statistical analysis of the survey data. Finally, to ensure that there were no systematic biases present within respondent sub-samples, we conducted a Monte-Carlo simulation study that randomly divided the entire survey sample into 30 different sets of two sub-samples. Then we conducted ANOVA tests and found that the differences between the two samples are non-significant (Thompson and Verma, 2003), indicating that there is no systematic bias present in the sample.

3.1.2. Semi-structured interviews

The aim of our qualitative interviews was to gain a detailed understanding of how consultancy firms provide professional services within the travel, tourism, and hospitality sector. The interviews were designed to help explore (1) the characteristics of professional service offerings, (2) the managerial challenges, and (3) contingent factors within the TTH study context. Details of our questions are provided in the interview guide in appendix 1.

We recruited well-qualified participants for the interviews. Thirty-one executives with diverse backgrounds representing both large and small firms and offering different types of consulting services to the travel, tourism and hospitality industry were contacted with a request to participate in interviews. Of these, seven individuals choose not to participate and a further four who initially agreed were unable to take part due to scheduling challenges during the data collection period. Of the twenty completed interviews, 15 were conducted in person and 5 via telephone. These respondents included Partners and Senior VPs at some of the largest multi-national consulting companies as well as CEOs and Presidents of smaller boutique firms. We also interviewed mid-level managers at both large and small firms. Most interviewees have extensive experience in both consulting and the TTH industry (10–25 years). Table 2 provides an overview of the interviewees in our study. The interviews lasted approximately 30 min, and, with permission, extensive notes were taken throughout.

We subsequently interviewed 2 senior level consultants and 2 senior client side executives with extensive experience of hiring consultants. These follow up interviews were intended to both validate emergent qualitative and quantitative findings and help

Table 1
Survey sample descriptive statistics.

Firm level			Individual level		
Variable	N	Percent	Variable	N	Percent
Area of Practice			*Job Title*		
Information Technology	6	2.4%	Analyst	10	4.0%
Financial/Accounting	14	5.6%	Consultant	43	17.1%
Hospitality	77	29.9%	Sr. Consultant	50	19.9%
Management	29	11.6%	Director	35	13.9%
Law/Legal	5	2.0%	Vice President	14	5.6%
Cross-Discipline	80	32.7%	President	22	8.8%
Other	40	15.9%	Managing Director	32	12.7%
			Other	45	17.9%
Firm Size			*Income*		
0–10 employees	122	48.6%	Up to $150,000	141	56.2%
11–100 employees	50	19.9%	More than $150,000	65	25.9%
101–500 employees	36	14.3%	Missing	45	17.9%
>500 employees	41	16.3%	*Age*		
Missing	2	0.8%	<40	70	31.9%
			41–60	129	51.4%
Industry Specialization #			>61	40	15.9%
Travel, Tourism, Hos.	192	76.5%	Missing	2	0.8%
Retail	60	23.9%	*Education*		
Healthcare	42	16.7%	High school diploma	3	1.2%
Manufacturing	52	20.7%	Some college or associates degree	21	8.4%
Education	64	25.5%	4-year college degree	56	22.3%
Government	60	23.9%	Post-graduate or master's degree	139	55.4%
Other	59	23.5%	PhD or doctorate	32	12.7%
			Gender		
			Female	68	27.1%
			Male	178	70.9%
			Missing	5	2.0%

Total Sample Size = 251. # Subjects were allowed to select more than one industry specialization.

Table 2
Description of semi-structured interview participants.[a]

Firm	Size	Specialization	Position (seniority)	Type of consulting
Protein Hospitality Partners	Small	Hospitality	Managing Partner	Hospitality Consulting
DK Shifflet & Associates	Small	Hospitality	VP Lodging Research	Marketing Research
P3 Advisors	Small	Hospitality	President	Strategy Consultants
AETHOS	Small	Multiple	Managing Director	HR Consulting
Czar Metric	Small	Multiple	President/Principal	Analytics
Milestone Internet Marketing	Medium	Hospitality	CEO	Marketing Services for Hospitality
Rainmaker	Medium	Hospitality	Vice President	Revenue Management Software
Smith Travel Research	Medium	Hospitality	Senior VP	Hospitality Market Research
LRA Worldwide	Medium	Hospitality	CEO	Customer Experience Measurement
RateGain	Medium	Hospitality	Executive Vice President	Software
Clarabridge	Medium	Multiple	Project Manager	Marketing Analytics Consulting
Absolutdata Technologies	Medium	Multiple	CEO & Founder	Marketing Analytics Consulting
Talent Plus	Medium	Multiple	Founder & President	HR Consulting
Talent Plus	Medium	Multiple	Project Manager	HR Consulting
PriceWaterhouse Coopers (PWC)	Large	Multiple	Principal	Management Consulting
SAS Institute	Large	Multiple	Principal Industry Consultant	IT/Software
Accenture	Large	Multiple	Managing Director	Management Consulting
Gallup	Large	Multiple	Senior Strategist	Strategy Consultants
Tata Consultancy Services	Large	Multiple	Client Partner	IT Consulting
Deloitte	Large	Multiple	Partner, Global Lead	Management Consulting

[a] Names of interviewee disguised to protect confidentiality.

refine our interpretation of some specific questions that arose from the preliminary analysis.

3.1.3. Focus group

The final element of our mixed methods approach was to convene several focus groups where findings and preliminary conclusions from both interview and survey data were presented. In our first focus group we gathered 30 industry experts, including consultants, partners or clients (Senior executives from a number of large TTH industry organizations), to generate discussion and feedback. The focus group was organized in conjunction with a major TTH industry conference/tradeshow within the United States. We used multiple research assistants as note takers to capture the rich and wide ranging content of the discussion. We then convened two additional focus groups of 5 mid-level managers (each) on the client side to respond to several questions regarding the preliminary analysis.

3.2. Data analysis

Our analysis of the qualitative data (interviews and focus groups) relied on both open and axial coding of notes (based on the

research questions and the associated literature). We read and re-read the data searching for common themes, contradictory, contingent, and more subtle findings. Miles and Huberman (1994) note that coding based on this approach can ensure that the "analyst is open-minded and context-sensitive" (p58), rather than simply force-fitting the data into pre-existing codes. We then sought to link these themes together into more coherent chunks of text, adding new and deleting marginal codes as we gained a clearer picture of what was important in our data set. Quantitative data were analysed using both standard descriptive and multivariate statistical techniques. The specific approaches for each analysis are described in the relevant analysis sub-section. Analysis of the best–worst choice experiment (RQ2) was done by estimating multinomial logit (MNL[4]) models for each professional service respondent using a hierarchical Bayesian estimation technique (Hensher et al., 2005).

4. Analysis

In this section we provide the analysis of data collected in our study and present our findings in relation to each research question in turn. In investigating the extent to which characteristics and managerial challenges may be contingent on three key variables the following characteristics of the sample were observed.

- *Size of the firm* (*Scale*). Consulting firms tend to be relatively small, in this dataset for example nearly half of the respondents worked for firms with 10 employees or less. For this reason, to investigate the effects of scale, we compare the responses of small firm respondents (i.e. firms with 10 employees or less, n = 122) with those from firms with more than 10 employees (n = 127). As a robustness check we created a regression model with firm size as a continuous predictor. This further analysis produced similar results, so we concluded that the simple small/large segmentation we selected above is appropriate.
- *Seniority of respondent* (*Leverage*). We test the impact of seniority by examining those respondents reporting salaries in excess of $150,000 (i.e. more senior respondents) as compared to those with lower salary levels (i.e. less senior respondents). We chose salary as a proxy for seniority because of the ambiguity surrounding the interpretation of job titles. We recognize the limitations of this choice but felt it was a better proxy for seniority than job title, years' experience, or age. We performed a robustness check with seniority by creating a regression model with salary as a continuous variable which produced similar results to those for the scale noted above.
- *Specialization of firm*. As noted earlier, we analyse specialization according to consultants declared industry and functional focus. For our dependent variable 'level of customization' we created a weighted average based on subject's responses to the question: For all client/project activities, please indicate the approximate proportion of activities that are: Fully, Significantly, Somewhat or Not at all customized (Fig. 4).

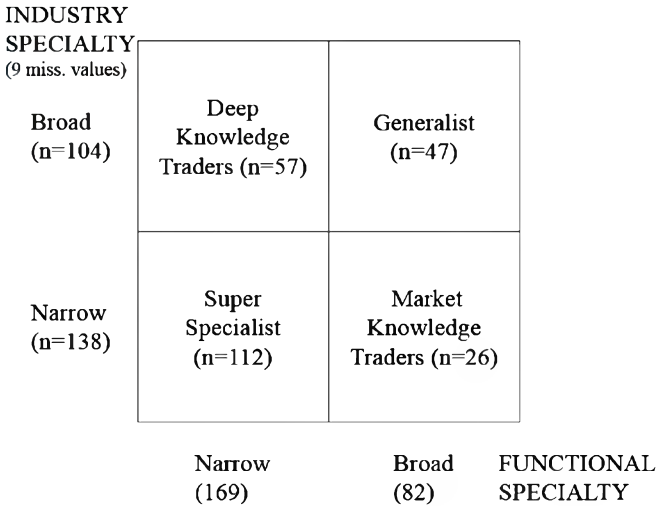

Fig. 4. Industry and functional specialization.

4.1. Characteristics of consultancy in the travel, tourism, and hospitality sector

4.1.1. Customer engagement in consultancy

When asked in the interviews about engaging with their customers, the consultants all emphasized the centrality of the client relationship in their work, typified by strong statements such as "it's all about the customer" and "it has to be a hurricane for me to say no to a client". Some observed that their work had become "much more consultative" over time and that whereas "it used to be that you fly in, crank out a report with recommendations and fly home" management consultancy is increasingly "about relationships and not just transactions". With interviewees identifying the critical nature of relationships in a consulting practice, we expected that customer engagement would be relatively high for these firms. Our survey data, however tells a rather different story. Surprisingly, given the evidence of the interviews and the high levels of interaction discussed in much of the literature, our analysis suggests that less than 10% of consultant time (independent of firm size, etc.) is spent working directly, collaboratively with clients (See Table 3).

When the focus group participants were presented with the survey findings it provoked an extended discussion regarding the conventional wisdom surrounding the consultant–client relationship. One senior interviewee argued that it was *only* collaborative working that differentiated what they did from other firms. Another, executive expressed shock, and challenged the group to answer "how can we say we are there for our clients if we never actually work with them." Perhaps more surprisingly, others (i.e. the majority) felt the figure "looked about right." Other interviewees suggested that time allocations are very much task dependent, "If we are running an implementation then I would expect to be collaborating much more." Offering some support for this assertion, the data point to significant variation in the proportion of time assigned to different forms of collaborative and independent activities. Overall, the focus group participants provided support for the results from semi-structured interviews and survey.

4.1.1.1. The effect of scale, leverage, and specialization on customer engagement. First, considering the effect of scale on customer engagement, we utilized ANOVA with firm size as the independent variable and time working collaboratively with clients as the dependent variable (Table 4, column 1). We found no evidence of a statistically significant difference between small and larger firms in our sample in the amount of time they spend engaging with clients. Second, considering the effect of leverage (seniority) on customer engagement (Table 4, column 1), our analysis indicates that senior consultants spend significantly more time with clients than junior colleagues. This confirms an assumed practice in the field of

[4] See Verma et al. (1999) for a detailed description of how MNL models are developed for a standard discrete choice experiment.

Table 3
Respondents' time spent working collaboratively or independently.

Please indicate the average percentage of time you spend every week on each type of activity below:	Mean	Median	Std. Error
Working collaboratively			
(own organization) on client project activities	14.62	10	0.98
(client organizations) on client project activities	9.36	5	0.74
on business development activities	6.52	5	0.54
(own organization) on non-client project activities	5.07	0	0.60
on other activities	1.29	0	0.29
Working independently			
on client project activities	38.12	35	1.59
on business development activities	11.26	10	0.80
on non-client/project activities	10.39	10	0.79
on other activities not specified above	3.36	0	0.69

Key: Subjects were asked to divide 100 percentage points across the various options. Points were required to add up to 100.

Table 4
Contingency analysis of customer engagement, level of customization, knowledge intensity, and capital intensity by firm size (scale) and seniority (leverage).

	Customer engagement	Level of customization	Knowledge intensity	Capital intensity
Firm Size				
10 employees or less (n = 122)	9.47 [1.07]	70.97 [2.04]*	5.39 [0.11]	4.14 [0.10]*
More than 10 employees (n = 127)	9.33 [1.04]	63.53 [2.22]*	5.27 [0.11]	4.41 [0.10]*
Seniority				
Salary of $150,000 or less (n = 141)	8.12 [0.90]*	63.76 [2.21]*	5.27 [0.10]	N/A
Salary of more than $150,000 (n = 65)	13.23 [1.70]*	72.42 [2.49]*	5.52 [0.12]	N/A

Note: * Denotes a significant difference in the mean value between the groups at the $p < .05$ level. Mean and Standard error (in brackets) are reported above.
P-values for all statistical tests reported in this paper were fixed to one value (0.05) as suggested by Verma and Goodale (1995) to ensure highest degree of statistical power.
Customer Engagement is a measure of the percentage of their time respondents reported to spend working collaboratively with clients on project related activities.
Level of Customization is a measure customization using a weighted average formula (See Table 6).
Knowledge Intensity is measured on a 7 point Likert Scale. It incorporates the 3 components of the knowledge intensity factor (See Table 8).
Capital Intensity is measured on a 7 point Likert Scale. It incorporates the 4 components of the capital intensity factor (See Table 8).

leveraging senior client relationships while more junior consultants spend larger proportions of their time working independently on analysis. Finally, considering the effect of specialization on customer engagement (Table 5, column 1), our data indicate that the super specialists spend significantly less time with clients than deep knowledge traders and generalists (almost half as much). There is not a significant difference between super specialists and market knowledge traders.

4.1.2. Customization in consultancy

Our interview data suggests that the level of customization for consultancy services provided to TTH sector clients varies significantly. Specifically, many consultants talked about relying on 'prescriptions' when taking on a new project, several talking about "a tried and true methodology that has worked for thousands of clients" or suggesting that "the principle of what we are doing does not change … the way it is served up changes." Conversely, others highlighted the need to provided highly customized offerings based on individual client requirements. Our survey data supports these findings, indicating that although respondents described a large majority (71%) of activities as fully or significantly customized, this left 29% that were somewhat or not all customized. Survey data also pointed to large variation in the extent of customization across different respondents (See Table 6 below).

4.1.2.1. The effect of scale, leverage, and specialization on customization. First, considering the effect of scale on customization (Table 4, column 2), several interviewees put forward the notion that professional service operating models stratified according to firm size; where big(ger) firms follow process (i.e. "You don't need to be smart to work at [Prestigious Global Consulting Firm], you just have to be able to follow the process … the process ensures success") and small firms offer a more custom experience ("Boutique consultants have the attitude of, 'I work for you and your needs,' they see the big picture, not just the prescription"). In support of this perspective, our survey data suggests that small firms customize their service offerings to a significantly greater extent than larger firms in our sample. Second, considering the effect of leverage (seniority) on customization (Table 4, column 2), our analysis indicates that senior consultants (salaries in excess of $150,000) report higher levels of customization of their service offerings when compared to those with more junior positions. When we divided the sample by firm size we also saw an interesting result (Table 7, column 2). While small firms tend to customize more (as noted above) there is no difference in the amount of customization by seniority at these firms. However, at larger firms whilst the *average* level of customization is lower, senior managers customize significantly more than their more junior colleagues. This suggests an interaction effect between firm size

Table 5
Contingency analysis of customer engagement, level of customization and knowledge intensity considering interaction between functional area and industry.

	Customer engagement	Level of customization	Knowledge intensity	Capital intensity
Generalists (n = 47)	12.47** [2.16]	74.71** [2.40]	5.50 [0.18]	4.40 [0.17]
Market Knowledge Traders (n = 26)	11.54 [2.83]	64.14 [5.31]	5.28 [0.22]	4.36 [0.24]
Deep Knowledge Traders (n = 57)	11.23** [1.59]	67.98 [2.75]	5.77** [0.12]	4.18 [0.16]
Super specialists (n = 112)	6.69** [0.88]	65.26** [2.53]	5.09** [0.13]	4.27 [0.10]

Note: ** Denotes a significant difference in the mean value between the groups at the $p < .05$ level. Mean and Standard error (in brackets) are reported above.

Table 6
Respondents' reported level of customization.

For all client/project activities, please indicate the approximate proportion of activities that are:	Mean	Median	Std. Error
Fully customized	43.52	40	2.14
Significantly customized	27.47	25	1.61
Somewhat customized	17.23	10	1.32
Not at all customized	11.78	0	1.29

We consolidated these four variables into one new measure (level of customization) using a weighted avg. formula where level of customization. = 1*(fully cust.) + 0.66*(sig. cust.) + 0.33*(somewhat cust.) + 0*(not cust.).

Table 7
Contingency analysis of customer engagement, level of customization and knowledge intensity considering interaction between firm size and seniority.

	Customer engagement	Level of customization	Knowledge intensity	Capital intensity
10 Employees or less				
Salary of $150,000 or less (n = 63)	8.33 [1.26]*	69.29 [3.11]	5.35 [0.14]	N/A
Salary of more than $150,000 (n = 29)	14.14 [2.82]*	74.98 [3.54]	5.45 [0.23]	N/A
More than 10 employees				
Salary of $150,000 or less (n = 78)	7.95 [1.27]*	59.30 [3.02]*	5.20 [0.13]*	N/A
Salary of more than $150,000 (n = 35)	12.57 [2.14]*	70.18 [3.57]*	5.68 [0.20]*	N/A

Note: * Denotes a significant difference in the mean value between the groups at the $p < .05$ level. Mean and Standard error (in brackets) are reported above.

and seniority as they relate to customization. Larger firms customize less than small firms (main effect), with more junior employees within larger firms representing the group with the least customized work (interaction effect). Finally, considering the effect of specialization on customization (Table 5, column 2), we see that 'generalists' customize significantly more than 'super specialists'. There is no difference in the amount of customization amongst the other groups.

4.1.3. Knowledge and capital intensity in consultancy

We now examine the extent to which characteristics of knowledge and capital intensity present themselves in TTH consulting. Unsurprisingly, interview data stressed the knowledge-intensive nature of consulting work, "[o]ur clients have data; we use analytics to answer their business questions", suggesting a form of passive co-production, where clients provide inputs that the consultants transform with knowledge and training to create value. There were also some interesting insights into the (changing) nature of that knowledge, with one interviewee explaining how "we need people with a higher degree of analytical skills than before. We are number geeks that can communicate" or, similarly, "it used to be that consultants were generalists … we are smart, we can help you. Now there must be specific knowledge. Outcomes must be actionable."

In our survey, we addressed this research question by asking participants to answer the following question: *"Please rate the following characteristics for your organization's work"*. We then listed 15 items relating to different aspects of the organization's work (von Nordenflycht, 2010) using a 1–7 Likert scale from 'extremely low' to 'extremely high'. We carried out an exploratory factor analysis on these characteristics using principal components analysis (Ahire et al., 1996). We removed five items that cross-loaded on multiple factors or did not load at all and settled on a parsimonious three-factor solution comprising ten items explaining 57% total variance. After running reliability tests, we removed one factor because of a low reliability statistic (Alpha .547). The remaining two factors of 'knowledge intensity' and 'capital intensity' (Table 8) have alphas of .714 and .640 respectively, which although not high, exceed the recommended value for exploratory work (Nunnally, 1978).

In line with our interviews, survey data shows strong evidence of knowledge intensity with *reliance on knowledge assets/human capital*, *knowledge intensity of activities undertaken*, and *proportion of employees with a formal qualification* all scored highly within the work characteristics section of the survey[5] (Table 8). Perhaps more surprisingly, our survey data also indicate that the level of capital intensity is much higher than might be expected for professional services. In particular, the *use of information technology to automate service delivery* and *level of investment in information technology* had high scores.

4.1.3.1. The effect of scale, leverage, and specialization on knowledge and capital intensity. In line with the previous analysis, we use our three contingencies as independent variables. For our dependent variable 'knowledge intensity' we averaged the three components that made up the knowledge intensity factor. We found no evidence of firm size (scale) or seniority (leverage) influencing the level of knowledge intensity. We then examined the interaction of scale and leverage on knowledge intensity (NB. we did not examine the interaction effect of seniority, an individual level variable, on capital intensity, a firm level variable). Again, our analysis provides interesting results (Table 4, columns 3 and 4, above). As main effects, scale and leverage on knowledge intensity produced no results but by interacting them we see significantly greater levels of knowledge intensity of more senior managers in larger firms. This suggests a hierarchy or stratification of knowledge intensity among larger firms that is not present in small firms.

Regarding specialization (Table 5, columns 3 and 4 above), data indicate that 'deep knowledge traders' reported significantly higher levels of knowledge intensity than 'super specialists'. There is no measurable difference among any of the other groups. This may suggest that there is a certain amount of additional training (perhaps certification) necessary to specialize in one functional area. With 'capital intensity', where we once again averaged the four components that made up the factor, we found no evidence of differing levels of capital intensity by specialization but there were the expected significantly lower levels of capital intensity for the smaller firms. The interviews added some richer insight regarding the implications of this, on the surface unsurprising, finding, "We as a large company have many more resources and are more capital

[5] The slightly lower level of employees with formal professional (e.g. legal, technical etc.) qualifications reflects the non-regulated nature (cf. Law, Accountancy, etc.) of consultancy services.

Table 8
Factor analysis of professional service organizational characteristics.

Organizational work characteristics	Mean		
Factor		1	2
Eigenvalue		2.76	1.72
Percent variance explained		27.7	17.2
Knowledge Intensity			
Proportion of employees with formal professional (e.g. legal, technical etc.) qualifications	4.86	**.789**	.098
Organizational reliance on knowledge assets/human capital	5.58	**.784**	.197
Knowledge intensity of activities undertaken in your organization	5.45	**.779**	.001
Capital Intensity			
Level of investment in information technology (e.g. workflow management, time recording software, customer relationship management)	4.43	.292	**.760**
Capital intensity of activities undertaken in your organization	3.83	−.145	**.703**
Organizational reliance on physical equipment and infrastructure	4.18	−.028	**.651**
Use of information technology to automate service delivery	4.62	.370	**.620**

Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.
The bold font signifies allocation to a shared factor – i.e. the first three items are all part of factor 1, and the next four are part of factor 2.

intensive. We don't have the domain knowledge that small companies have, but we have the products that they do not." Another consultant for a large company described it this way, "Small firms have good people and good tech … but what we can do is provide the plumbing".

4.2. Managerial challenges for consultancy in the travel, tourism, and hospitality sector

Our second research objective was to examine the managerial challenges associated with delivering consultancy services. Table 9 provides descriptive survey data for the 23 managerial challenges based on the best–worst choice experimental procedure outlined in our research methods section. Our survey data suggest that for consultancy firms serving the TTH sector, the most important managerial challenges are *maintaining the quality of service* (2.96), *enhancing service experience* (2.24) and *knowledge management* (1.62). The significance of managing quality may reflect the nature of management consultancy where, one interviewee noted that, unlike an accredited profession, "there is no standardized reference point … there is no universally recognized independent mark of quality". Other respondents connected the challenge to the knowledge asymmetry and specifically, the relative immaturity of the sector as a buyer of such services; "In hospitality, customers don't quite know what they expect. How do you meet/exceed expectations when your customers don't even know entirely what they want?"

The least important challenges reported by our survey respondents are *attention to physical surroundings* (−2.48), *managing rigid hierarchy* (−1.48), *managing flat hierarchy* (−1.32), and *employee hiring* (−1.27). These findings, especially with respect to employees, are more surprising and were contradicted by the qualitative data. Many interviewees specifically mentioned the challenges they face with finding ("We are constantly competing for talent and we have great competitors") and managing employees ("By far our #1 issue is talent management."). It was also interesting to note that, despite a widely held belief that "opaque quality" (von Nordenflycht, 2010, p. 161) requires professional services to signal quality through other implicit aspects of their service package, such as attractive offices and meeting rooms, etc., this issue was ascribed a very low importance (−2.48 utility score). This may reflect the specific work model of consultancy, where most face-to-face interaction (Note, and this is relatively limited) takes place on the client's site.

Data analysis also suggest some divergence in our managerial challenge data relative to expectations of positioning based on extant literature. Whilst *managing growth*, *developing work and control methods*, *maintaining quality of service*, and *reacting to consumer intervention in service processes* are all relatively important challenges for the managers in our study (i.e. a utility score great than +0.5), other professional service challenges, including *controlling work across geographically dispersed locations*, *scheduling workforce*, *start-up of new operations at new locations*, *employee hiring*, *fighting cost increases*, *managing career advancements of employees*, and *managing flat hierarchy with loose subordinate-superior relationships* all have much lower utility scores than would be expected based on existing conceptual frameworks.

4.2.1. The effect of scale, leverage, and specialization on managerial challenges

Although we found no differences based on seniority or specialization, firm size highlighted some significant differences emerged in relation to scale (firm size) (Table 10). Larger firms are significantly more concerned with *employee hiring*, *employee training*, *gaining employee loyalty*, *managing career advancement of employees*, and *managing rigid hierarchies*. This notion is supported by our qualitative data with executives at large firms making comments like, "By far our #1 issue is talent management," and "We are constantly competing for talent". Another interesting finding from this contingent analysis is that small firms are significantly more concerned with *maintaining quality of service*, *marketing*, *monitoring and implementing technological advances*, and *managing demand to avoid peaks and promote off-peaks*. For smaller consultancy firms, the particular emphasis on quality of service and marketing may not be particularly surprising given the higher level of criticality that arguably surrounds each individual piece of work as well as the more severe consequences of a dissatisfied or lost client. The emphasis on monitoring and implementing technological advances may a first appear somewhat counter-intuitive given the early discussion of large firm investment in technology. However, perhaps we are seeing a greater emphasis on monitoring and implementation precisely because the funds available to invest are more limited and thus selection of new technology and subsequent implementation take on greater importance in smaller consultancy firms. Finally, without the benefits of scale and resource reallocation, smaller consultancy firms are arguably more likely to be concerned with looking to manage demand throughout the year in order to provide a steady flow of work for a small workforce.

5. Discussion

In this section, we reflect on the analysis of the data generated by our mixed method approach and review each of our research objectives in turn.

Table 9
Mean centred relative utility scores for managerial challenges (estimated by individual level multinomial logit model derived from the best–worst choice experiment).

Managerial challenge	Relative utility score	Std. Error
Maintaining quality of service	2.96*	0.07
Enhancing service experience.	2.24	0.08
Knowledge management	1.62	0.07
Managing growth	1.14	0.09
Marketing	1.04*	0.10
Developing work and control methods	0.95	0.08
Reacting to consumer intervention in service process	0.90	0.07
Gaining employee loyalty and retention	0.34*	0.08
Employee training	0.30*	0.07
Managing demand to avoid peaks and to promote off peaks	0.25*	0.08
Monitoring and implementing technological advances	0.16*	0.07
Scheduling service delivery	0.02	0.09
Employee welfare	−0.27	0.06
Controlling work across geographically dispersed locations	−0.54	0.11
Fighting cost increases	−0.66	0.08
Capital investment decisions	−0.78	0.11
Managing career advancements of employees	−0.80*	0.08
Scheduling workforce	−1.14	0.09
Start-up of new operations at new locations	−1.19	0.11
Employee hiring	−1.27*	0.09
Managing flat hierarchy with loose subordinate–superior relationships	−1.32	0.07
Managing fairly rigid hierarchy with need for standard operating procedures	−1.48*	0.10
Attention to physical surroundings	−2.48	0.06

Note: * indicates a significant difference at the $p < 0.05$ level across firm sizes (<= 10 employees vs. <10 employees). No significant differences at the $p < 0.05$ level across seniority (<= 150 K vs. >150 K). No significant differences at the $p < 0.05$ level across industry specialization.

5.1. Do generic conceptualizations reflect the specifics of a particular type of PSO?

Our first research objective was to examine the extent to which levels of engagement, customization, knowledge intensity, and capital intensity present in our study reflect the predominant characterizations of professional service operations. Table 11 highlights that when observing the characteristics of a particular PSO type, TTH management consultancy, a mixed picture emerges. Analysis confirmed the idea that consulting operations are knowledge intensive and reliant on knowledge assets/human capital. Interestingly, even though consulting is not a regulated profession[6] we observed a high level of formal professional qualifications, with the qualitative data suggesting that the reputational benefits of such qualifications mean that they remain important (e.g. "In our business you can't make Senior Consultant without an MBA … having an MBA is critical to *selling* our business."). Set against this confirmatory data, practice diverged from theory informed expectations in three of the four dimensions. We now discuss each of these in turn.

Table 10
Mean centred relative utility scores for managerial challenges by firm size.

	Mean Values	St. Error
Employee hiring		
10 employees or less	−1.55*	.13
More than 10 employees	−.99*	.12
Employee training		
10 employees or less	.02*	.10
More than 10 employees	.59*	.10
Gaining employee loyalty and retention		
10 employees or less	−.05*	.10
More than 10 employees	.71*	.11
Monitoring and implementing tech. advances		
10 employees or less	.38*	.11
More than 10 employees	−.06*	.10
Managing demand to avoid peaks and to promote off peaks		
10 employees or less	.60*	.118
More than 10 employees	−.08*	.108
Managing career advancement of employees		
10 employees or less	−1.15*	.108
More than 10 employees	−.47*	.109
Managing fairly rigid hierarchy with need for standard operating procedures		
10 employees or less	−1.73*	.139
More than 10 employees	−1.25*	.154
Maintaining quality of service		
10 employees or less	3.10*	.089
More than 10 employees	2.84*	.095
Marketing		
10 employees or less	1.40*	.134
More than 10 employees	.68*	.139

Note: Firm size: 10 employees or less (n = 122), More than 10 employees (n = 127). Mean values represent the relative utility score from the max-diff experiment. * Significant at the $p < .05$ level.

5.1.1. Engagement: talking about the client more than talking to them

Our data suggests that, whilst consultants like to think of themselves as highly engaged, in practice much of their actual time is spent working independently or with colleagues rather than directly with clients. We interpret these findings (i.e. consultants say they work with clients all the time but, in practice, don't) as offering support for a combined passive and active model of consultancy client engagement. There may be periods of face-to-face (sometimes remote) 'engagement' but these will typically be time limited (from our data this may, ironically, often be at the behest of the client, who doesn't want too much interruption in their day-to-day activities) and perhaps focused on the initial service requirements or perhaps project close phases of any exchange (Chase and Dasu, 2001). There was also some anecdotal support for a more symbolic model of consultancy, with one senior consultant stressing that "clients often hire consultants for affirmation. They want a consultant to tell them they are doing well, they don't want a consultant to innovate".

[6] Regulation was something advocated by at least one of interviewees: "consulting as a skill set is not currently recognized in any formal way (i.e. through certification) … there should be a governing organization that certifies quality in the consulting world."

Table 11
Summary of PSOM characteristics – findings versus expectations.

RQ	Key measure	Overall sample
1a	Customer engagement	Substantially lower than expected
1b	Customization	High, but slightly lower than expected. High proportion of work un-customized
1c	Knowledge intensity	Similar to expectations
1c	Capital intensity	Higher than expected

5.1.2. Customization: a portfolio of bespoke and standard practice

The survey data suggests levels of customization that were, broadly, in line with expectations but, given the much lower than expected levels of customer engagement, this raises the intriguing prospect of customization without significant consultation or collaboration. Conversely, qualitative data analysis suggests a significant proportion of consulting offerings with low levels of customization. One executive in our interviews identified three operating models in TTH consulting firms. His observation was that firms sell "standard products with little customization, tested models 'a standard playbook but can run several plays', or hairballs 'you have to go in and figure it out". We interpret the significant variation we see in levels of customization as indicating a mixed portfolio of bespoke and standard work, akin to Maister's (1993) brains, grey hair, and procedural work.

5.1.2.1. Knowledge intensity: gaining expertise through client network exploitation. Findings relating to levels of knowledge intensity and reliance on knowledge assets/human capital were in line with expectations ("We need people with a higher degree of analytical skills than before. We are number geeks that can communicate", etc.) but there were some interesting qualitative insights relating to the nature of client–customer knowledge flows. There was ample evidence of the traditional assumptions about knowledge transfer being a flow from expert to client ("[The] industry is immature … consultants bring technical expertise that is in high demand and that doesn't already exist in the industry") but also evidence to support the notion, highlighted in the literature review, that consultants *become* sector experts by exploiting client networks ("[Given the] complexity of the industry, so many stakeholders involved with each property … often part of a consultant's job is to bring everyone together") and building upon repeat business. In this way some aspects of knowledge intensity are essentially context-bound ("Our knowledge is not scalable. What you know is only relevant to the context where you learned it"). As such, finding and selling to clients is fundamental to both business development and operations management ("I don't need operations people, I need people who can sell $10 million in services next year").

5.1.3. Capital intensity: high investment especially in communications technology (ICT)

More surprising was the finding that capital intensity is relatively high. In general terms we interpret this as reflecting, in part, the dramatic ICT-related changes in all business operations in the last 20 years and more specifically, the implementation of staff coordination and knowledge management systems in many consulting firms. We also revisit this issue in our subsequent discussion of contingencies (See section 5.3) as there were significantly lower levels of capital investment to support different activities in smaller consulting firms within our study.

5.2. Managerial challenges

Our second research objective was to examine the managerial challenges associated with delivering professional services. At a general level our data supports previous studies (Verma, 2000) with respect to the most important managerial challenges – maintaining the quality of service, enhancing service experience, knowledge management, and managing growth. The least important challenges were more striking: attention to physical surroundings, managing rigid hierarchy, managing flat hierarchy, and employee hiring. It is interesting that consultants report very little concern with physical surroundings, given than the image of most consultants is that of fancy offices in expensive locations. It could be that physical surroundings is not an item that needs to be actively managed or once the office is leased there is very little that can be done about it. More interestingly, this may reflect the transition to a technology-mediated service model whereby the majority of client-related interaction occurs via e-mail, Skype, Google Hangout, and conference calls. The relatively limited amount of time spent in the physical presence of clients suggests that generic service models need to reflect the fact that this form of interactive medium is increasingly the norm (or at least widely adopted) in many professional services.

5.3. Towards a contingent perspective of PSOM

Our third research objective was to explore the effect of three potential contingencies on both PSOM characteristics and managerial challenges. Here, we reflect on three key observations based on analysis from this study.

5.3.1. Interaction of scale and leverage

Some of the contingent observations on characteristics were more confirmatory than novel. For example, larger firms placing greater emphasis on investment in information technology (e.g. workflow management, time recording software, and customer relationship management systems) or senior staff spending more time collaborating with clients. Building on this observation, after interacting all three variables with customization and knowledge intensity we found no difference in the level of customization between senior and junior consultants for small firms, perhaps suggesting an 'all hands on deck' approach to their work. Conversely, in the larger firms within our study we observe significant differences in customization. Taken together our findings suggest that, where scale allows, more senior consultants have a more creative and client relationship focused role than their junior colleagues who play a more procedural role requiring less engagement with clients and affording less opportunities for customization. There was also some evidence that more senior positions in large firms are only available to those with additional education.

The critical observation from these findings is that some insight regarding level of analysis (i.e. size and/or seniority) is absolutely fundamental to make sense of process structure in consulting. At the individual level of analysis, contingencies such as seniority of the consultants impact the business processes, while at the group level firm size and specialization impact operational characteristics. These levels of analysis must be taken separately and collectively to create a full picture of PSOM.

Table 12
Summary of contingency effects in PSOM.

Sub-samples, based on contingent factors examined		Key measures			
		Customer Engagement	Customization	Knowledge Intensity	Capital Intensity
Specialization	Generalists	Engage more than super specialists	Customize the most, significantly more than super specialists		
	Market Knowledge Traders				
	Deep Knowledge Traders	Engage more than super specialists		Highest level of knowledge intensity, significantly higher than super specialists	
	Super Specialists	Engage the least with customers	Customize significantly less than generalists	Lowest level of knowledge intensity, significantly less than deep knowledge traders	

5.3.2. Contingent effect of firm type

The contingent effects of specialization generated some of the most interesting findings. We found that those who are functional and sector specialists (super-specialists) spend less time with clients. This offers confirmation that expert services are not necessarily predicated on interaction or more provocatively, are actually predicated on *not* interacting to allow them to undertake their work, preserve status, etc. The more generalist firms have to complement their more limited expert status with high levels of interaction (networking, etc.). Additionally, generalists customize their offering significantly more than specialists. This may be because of specialists' over reliance on prescriptions developed for the industry in which they market themselves as experts. Generalists may be expected to tailor their methods to some degree to access various industries while specialists may have a greater incentive to perfect methods and customize less. Table 12 summarises the significant findings relating to specialization.

5.3.3. More detailed descriptions of managerial challenges?

Beyond the (perhaps unsurprising) observations regarding differences between small and large firms, the absence of any meaningful variation in the prioritization of challenges related to seniority or specialization was unexpected; especially given how strongly these contingencies influenced work characteristics. If, as observed, senior managers customize work significantly more than their junior colleagues for instance, might we not have expected to see differential priorities emerging as well? One interpretation – with significant implications for PSOM – could be that the extant categorization of challenges are broadly 'correct' but too generic/insufficiently specified. This would explain the 'flattening' of expected differences in our study and suggest that, as currently detailed, they may offer limited conceptual and, more importantly, practitioner insight. This is rich ground for further work and we revisit this issue in the final section.

6. Conclusions

This paper reports on a mixed method examination of the characteristics and managerial challenges faced by consultancy firms serving the US travel, tourism, and hospitality sector, and the contingent factors affecting their operations. Such a focused study, looking at a specific type of professional service in a single sector is, to the best of our knowledge, a first in this area of OM[7] and, in undertaking such a focused 'deep dive', we clearly demonstrate the limitations of generic SOM frameworks in their treatment of professional services. Before discussing key contributions, it is important to reflect on the limitations of our work. Although we adopt a mixed methods approach, the scope of the primary data collection method, the survey, was limited by the selection of ex-ante variables. The aim was to balance comprehensiveness and parsimony to maximize responses from professionals who were unlikely to complete a more time-consuming survey. Similarly, although the decision to examine one specific empirical context was central to our research design, it naturally limits the generalizability of our findings.

6.1. Key contributions

Whilst acknowledging its limitations, we suggest that the research generates contributions to the emerging PSOM body of knowledge in two specific ways. First, we have already noted that the predominant characterizations of professional service operations do not appear, for TTH management consultancy at least, to hold. Consulting operations are indeed knowledge intensive but the most interesting aspect of this (self-evident) observation was actually the finding of high levels of formal professional qualification; suggesting perhaps that even in unregulated 'professions' both providers and clients value the reputational benefits of such barriers to entry. Our observation that consultants spent much of their time working independently or with colleagues rather than directly with clients provoked much debate (and some soul searching) in the focus group sessions but our data suggests that consultancy can be actually quite remote and passive and that any periods of face-to-face 'engagement' will typically be time limited and focused on specific project phases. Moreover, and further confirming the value of a study that allowed us to investigate PSOM in a particular market setting, our data suggests this may, ironically, often be at the behest of the client. The significant variation observed in levels of customization we interpret as confirming Maister's (1993) notion of a portfolio of *brains*, *grey hair*, and *procedural* work (and echoed in some of the insights developed by Kellogg and Nie, 1995). Finally, we also observed relatively high levels of capital intensity; reflecting perhaps the vintage of most PSOM characterizations (i.e. Maister and Lovelock, 1982; Schmenner, 1986; Silvestro et al., 1992; Wemmerlov, 1990) and the dramatic ICT-related changes that have occurred in *all* business operations in the last 20 years. More specifically, there have been significant investments in the implementation of staff coordination and knowledge management systems in many consulting firms.

Second, through contingent analysis based on both firm characteristics (scale, specialization) and individual level characteristics (leverage) we further demonstrate significant variation within

[7] The use of the Best–Worst (Max-Diff) technique to examine the relative importance of different managerial challenges also appears to be novel for the discipline.

what might be expected to be a relatively homogenous group of professional service operations. For example, the *differences* in the levels of both engagement and customization are also a consequence of size, specialization and seniority. In a similar vein, we also saw the important (though, perhaps less surprising) effect of size on the levels of investment in technology and infrastructure. Additionally, we observed interaction effects between firm size and seniority for both customization and knowledge intensity, highlighting the ways in which career progression is likely to have very different implications (in terms of operating characteristics and managerial challenges) for those operating in smaller as opposed to larger consultancy firms. Finally, investigating the effects of specialization generated a typology of consulting operations that also highlighted of the most interesting contingent findings. We found for example, that relative degree of interaction may be dependent on the degree of expertise, such that it was the *super-specialists* in our sample that spent less time with clients and the more *generalist* firms who were (complementing their limited expert status?) with high levels of interaction (networking, etc.).

6.2. Managerial implications

Our research also raises a number of implications for those working in (TTH) management consulting firms and for their prospective clients.

6.2.1. For consulting firms

The substantially lower than anticipated levels of client interaction confounded not only existing scholarly models but also the views of a number of respondents within our qualitative study. Although some of this disconnect is likely a function of dominant PSOM assumptions ignoring the key contingencies of seniority and specialization (ie. more senior staff and/or those working in more generalist consulting firms display higher levels of engagement than average), it may also reflect an industry logic, whereby practitioners spend so long *saying* their services involve extensive client-provider interaction that they believe this to be the case? One of our interviewees – a partner in a global consulting firm – answered the question "what research do you wish we were doing?" with the observation that "[w]e need research that will help us to gain an advantage over our competitors". If our observations regarding client interaction are even partially valid, this suggests significant opportunities for consulting firms to differentiate through customer service.

Equally, our findings suggest that consulting firm customization strategies need to acknowledge key contingencies that reflect concerns common to all operations. For instance, large-scale generalist firms can invest in a 'standard set of models' (cf. product modularity: Patel and Jayaram, 2014) that can underpin a wide variety of client needs. Conversely, specialists (i.e. those with unique resource endowments) may decide to offer much lower levels of customization.

Finally, the (unexpected) levels of capital intensity in our data suggest the existence of managerial challenges regarding the effective application of technologies that support intra- and inter-firm collaboration in a context where traditional operational/process control is limited (i.e. how do you persuade individual professionals to use the knowledge management/CRM/time recording, etc. etc. system properly?).

6.2.2. For consulting clients

Although our data was more limited on the buyer/customer side, our research highlights the risk of assuming that a 'general' model of consulting exists. More specifically, if levels of engagement are generally much lower than assumed, client organizations should perhaps question if engagement is for their benefit or for the benefit of the consulting firm (i.e. developing new sector or functional knowledge). More generally, if such diversity exists in what might have been assumed to be a homogenous group (i.e. consulting firms serving a specific sector), we would anticipate significant diversity in other professional service settings. As such, clients looking to engage lawyers, accountants, software providers, R&D laboratories, architects, and universities (to name a selection) should similarly be careful to avoid generic assumptions regarding operating model and performance.

6.3. Future research

Our exploratory study (and its limitations) gives rise to a number of future research opportunities. First, as well as welcoming studies that seek to replicate our empirical approach (i.e. service and setting) to assess the extent to which our findings hold true (Kaynak and Hartley, 2006), we would strongly encourage research that examines alternative and more detailed market sectors and/or professional service settings (e.g. US cardiology services, European architects serving public bodies, etc.)

Second, whilst we have started the process of exploring the contingent factors at play with PSOM, further work is clearly needed. For example, refined (or alternative) measures of scale, leverage, and specialization, or different contingencies such as reward systems, organizational culture, and decision-making mechanisms (i.e. centralized versus decentralized) may all offer useful insights. In addition, the managerial challenge categories need to be refined to better reveal the (contingent) detail of PSOM. What might have been the impact of, say, refining the 'enhancing service experience' category to better capture what this means for a senior engagement manager (e.g. regular requirements capture and satisfaction tracking, etc.) versus a more junior consultant (e.g. ensuring delivery against work plan, compliance with method, etc.)?

Finally, whilst our analysis suggests support for an expert consultant-passive client model of service delivery, the notion of the singular client is problematic. Schein (1999) for example, discusses multiple types of client position (e.g. the first 'contact' client, who may differ from the problem 'owner', 'intermediate' clients who work directly with consultants, 'unwitting'/'indirect' clients and 'ultimate' clients who might include client customers). In such a model, the direct interactions that 'matter' may not require lots of actual real time contact (cf. our discussion of the customer contact findings). Given the commercial and practical research challenge of accessing specific clients, behavioural experiments based on different types of clients–consultant interactions could thus provide invaluable insights.

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Appendix 1. Interview guide

Q1: Describe your role as a consultant and how this role has changed (or business of consulting changed) in this industry during your career?

Q2: How is consulting in the travel, tourism, and hospitality sector distinct (from other sectors) (If not, why not)?

Q2a: Follow-up: Why are consultants so important to this industry? What makes consulting in this sector a viable/fertile business?

Q3: Within the sector, how are consulting firms different? (Size, functional area, boutique vs. full service firms)

Q4: Describe the key managerial challenges for consulting firms in this sector.

Q5: How do you expect the Travel, Tourism, and Hospitality (TTH) sector to evolve in the future?

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